

# Farm Crop Queries

Conducted by Professor Henry G. Bell.

The object of this department is to place at the service of our farm readers the advice of an acknowledged authority on all subjects pertaining to soils and crops.

Address all questions to Professor Henry G. Bell, in care of The Wilson Publishing Company, Limited, Toronto, and answers will appear in this column in the order in which they are received. As space is limited it is advisable where immediate reply is necessary that a stamped and addressed envelope be enclosed with the question, when the answer will be mailed direct.



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**Question—W. W. M.**—Is there any quantity of spring wheat grown in Kent and Essex Counties? Would you advise planting spring wheat in Kent County on a good clay loam soil, tilled 3 rods apart, 4 in. tile? When should it be planted so that it will be sure to ripen?

**Answer**—Spring wheat has been successfully grown in both Kent and Essex counties. In 1911 Kent County was growing 1,018 acres while in 1914 there were only 183. In 1911 Essex County was growing 1,345 acres and in 1914 there were reported only 177 acres. From a study of the climatic conditions, both the range of temperature and the rainfall, I see no reason why spring wheat cannot be successfully grown in these counties, if proper precautions are taken.

According to investigations at Ontario Agricultural College, spring wheat should be seeded as early as the ground can be worked. I note that your ground is clay loam and is well supplied with tile. This ground should not be worked while it is sticky, nor should it be left unworked until it plows up into a rough seed-bed. In order to insure a good stand of wheat, you would do well to apply 200 to 300 pounds of a fertilizer carrying from 2 to 3% ammonia and 8 to 10% available phosphoric acid. The ammonia will give the young crop a good vigorous start, while the available phosphoric acid will hasten its ripening. At a recent meeting of the Ontario Experimental Union, Prof. Zavitz strongly recommended the use of Marquis wheat. If this is sown at the rate of one and a half bushels per acre on well prepared land, there is good reason to expect a profitable return.

**Question—S. R. P.**—I had a bad dose of smut in my wheat last summer. What treatment will make it safe to use as seed next spring? **Answer**—The disease in your wheat last summer may have been either the loose smut or the stinking smut or Bunt. About the only cure for the loose smut is careful selection of seed from grain which is healthy, followed by soaking the seed five hours in cold water and then 10 minutes in water at 130 degrees Fahrenheit.

It is most likely that the disease in your crop was stinking smut or Bunt. This attacks the young wheat seedling and the seedling parts or spores are carried in seeds which take the place of the wheat kernel. Experimental tests show that the best method of killing Bunt or stinking smut is to immerse the seed 20 minutes in a mixture of 21 gallons of water to one-half pound of formalin. There are other treatments, but this is one of the handiest and most effective, as formalin can easily be purchased at any drug store. Some farmers prefer to sprinkle the mixture of water and formalin on the wheat over night, so that the formalin acid gas, which is dissolved in the mixture of water and formalin, will be kept in around the wheat as long as possible. It is this gas which kills the tiny smut spores.

**Question—K. G.**—We had 40 acres of alfalfa which we cut three times last summer. Am afraid it went into winter rather weak. I have a good supply of manure. Would you advise liming it? If so, when? **Answer**—If alfalfa has gone into the winter in weak shape it should be given good care early in the spring, if its vigor is to be produced, and a good crop is to be produced. If you have some fairly well rotted manure, I would advise spreading at least two to four tons of this to the acre on the alfalfa field. I would also advise applying from one to two tons per acre of finely ground limestone, evenly distributed over the field. When the snow is gone in the spring and the alfalfa has gotten a good start, it will greatly help it to top-dress the alfalfa with about 250 to 400 pounds per acre of acid phosphate or bone meal. The late Joe Wing, the great American alfalfa authority, said: "The phosphorus generally stimulates the little alfalfa plants and makes them hustle to get ahead of the weeds and grass. On Woodland Farm we have used raw bone meal and acid phosphate with about equal results, as far as the eye could see. It is our practice to put on 250 to 400 pounds per acre of 16% acid phosphate when the alfalfa is sown on soils well supplied with lime. Acid phosphate is about the most soluble of the phosphate fertilizers and thus is best for top-dressing when there is abundant lime in the soil. On our alfalfa farm we give the alfalfa a heavy dressing of phosphorus (phosphoric acid, and this practice pays well."

If the alfalfa field is fairly heavy soil and it appears to be pretty closely compacted, it would greatly help the alfalfa to work the field by harrowing with the teeth of the harrow turned back so as not to tear the plants out. This also would stir up the soil mulch and help retain the water that is so necessary to big crops.

**Horse Sense**  
Impaction of the Colon may be present for some time without marked symptoms, then slight, colicky pains. Sitting on haunches, pressing crop against any solid object, little or no passages of feces, a general fullness of the right side of the abdomen, are other symptoms. Give a purgative, follow by 2-dram doses of nuxvomica 3 times daily, feed bran only, give rectal injections. If pain be well marked give 2 drams solid extract of belladonna. Oats is the principal grain for horses, but a little bran or oil cake might profitably be added to put the horse in condition. Baled oats might be fed occasionally, and care must be taken not to overfeed on hay.

Don't buy a field implement without a spring seat. Why? Because if you come in leg-weary from the field the chances are the horses will not get the attention they should have in the way of grooming after a dusty day in the hot sun.

Cribbing is a vice that is hard to be kept in a box stall without mangers or racks. In the majority of cases the vice can be checked by buckling a strap rather tightly around the horse's throat. Do not have it so tight as to interfere with breathing or swallowing.

Wheat must be fed carefully to horses in order to avoid digestive troubles and skin eruptions. As the kernels are small and hard they should be rolled for all farm animals. If ground too finely the meal must be mixed with coarser feed to avoid forming a pasty mass in the animal's mouth. Wheat has feeding value about equal to corn, but, for horses, oats are preferable.

"Better not do that, teacher," responded the youngster; "pop charges \$2 a visit."

"Robert," said his teacher, sternly, "you are incorrigible. I shall certainly have to ask your father to come and see me."

The women of the Philippines make a very fine lace from the fibre of the pineapple plant.

# ROOFING FARM BUILDINGS

The Cedar Shingle, Standby of a Past Generation, Giving Place to Lightning-Proof, Spark-Resisting Metal.

By W. E. Clark

Fifty years ago, when good cedar stock was in abundance and labor cheap, the farmers used to manufacture their own shingles by sawing, splitting and shaving, and there are many roofs yet throughout the country where split or shaved cedar shingles were applied fifty years ago. These shingles were generally about 1/2" to 3/4" thick, but time and weather have reduced the thickness of the exposed portion to that of cardboard. Under the natural tendency of things, however, the days of split or shaved cedar shingles are passed, and in replacement of them, a material is being used which is lighter in weight, stronger, and more durable.



When speaking of durability of a metal roof, galvanized materials only are referred to. Farmers in this country, nearly twenty years ago, applied painted roofing, and the painting of this roofing, which in some cases should have been an annual affair, was neglected, and the consequence was that corrosion set in, and the roofs rapidly deteriorated, but this is not the case with Galvanized Roofing. In the rural districts, where sulphurous gases are not prevalent, a Galvanized Roof made of good material and properly applied should give satisfaction for half a century at least.

In the march of progress a rapidly growing number of farmers, recognizing the merits of metal, are now adopting, as a safeguard against fire, lightning and decay, many forms of sheet metal products, such as metal roofings, sidings, ventilators, silo covers, etc., thus reducing risk as well as maintenance cost.

Probably the greatest virtue of the metal roof is that the risk from fire and lightning is minimized by its use. Inducements in the way of reduced premiums to encourage the use of galvanized covering, as a building with such a roof, properly connected to the ground by a water spout or a wire contact, is proof against a lightning bolt, and burning embers from another fire can do it no damage.

Until recent years, however, a galvanized iron roof was a luxury, but the introduction of modern machinery has reduced the cost of galvanizing to a minimum and it is now possible to get a substantial and almost everlasting roof in the form of metal shingles at a very moderate cost.

One feature of the Metal Shingle and Roofing is that it does not take an expert workman to apply it. Any unskilled buyer with a moderate degree of adaptability, a pair of snips and a hammer can apply these up-to-date shingles as well as sheet roofings and sidings.

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# Your Problems

Mothers and daughters of all ages are cordially invited to write to this department. Initials only will be published with each question and its answer as a means of identification but full name and address must be given in each letter. Write on one side of paper only. Answers will be mailed direct if stamped and addressed envelope is enclosed. Address all correspondence for this department to Mrs. Helen Law, 75 Castle Road, Toronto.

**Mrs. F. M.**—1. If lemons and oranges are placed in boiling water or in a hot oven for five minutes before squeezing the juice can be easily extracted. 2. Vegetables should not be served in individual side dishes, but should be placed on the dinner plate with the meat. 3. A child's Tam o' Shanter hat after being washed should be stretched over a dinner plate to prevent it from shrinking and losing shape. 4. Cornstarch added to the flour for pie crust will make it more flaky. If you are using pastry flour add one tablespoon to every cup of flour; if ordinary flour add two tablespoons to every cup. 5. The task of washing the family handkerchiefs is easy according to the following method: In a vessel containing at least two gallons of warm water, put four heaping tablespoons of any good soap or powder dissolved in one tablespoon oil. Plunge soiled handkerchiefs into this and bring slowly to a boil, then put them into clean strong suds and very little rubbing either by hand or machine will make them snowy white. 6. Colored clothes should be ironed on the wrong side. 7. Boil a slice of raw potato in a burned taste and the flavor will be restored. 8. Sprinkle starched clothes with warm water to make them stiffer.

**F. R. E.**—1. If you wake tired it is probably due to one of the following causes: (a) insufficient sleep; (b) the poisonous influence of stale air in the bedroom; (c) a late and heavy supper; (d) general nervous condition. Remedies for the first three are obvious. For the fourth it is usually sufficient to rise promptly, to dress briskly, thereby improving the circulation, and to take a nourishing breakfast. 2. To gain weight, eat raw eggs and milk, cream, rice, cereals, olive oil and grape juice, butter and starchy vegetables. 3. A secretary "pro tempore" is a secretary "for the time being."

**G. H.**—1. David Lloyd George was born in Manchester, England, in 1863, of Welsh parentage. His father, a poor and invalid schoolmaster, died in early manhood, and David was brought up in humble circumstances by an uncle in Wales. 2. To ventilate a room without draughts, take an old window screen, stretch thin muslin or cheese-cloth across it and tack it in place, and put it in a window as you would a fly-screen. 3. A secretary "pro tempore" is a secretary "for the time being."

**32. Give**—Is offering you now. True bread—The only one that completely satisfies the name. The manna was only partially so, for those who ate it hungered again. 33. The World—As in John 3: 16; the essence of the gift is that it has no limit of race and time. 34. The appeal—It is to be composed with that of the Samaritan women in John 4: 15. Here it seems that a real, though blind desire, for the heavenly gift went with ineradicable prejudices that make it impossible for them to receive it: verse 30 is enough to prove it.

**35. This is the converse** of John 20: 29. Yet is not in the Greek either here or there. 36. The form of this verse is one often found in this Gospel; see John 17: 24, where the American Revision has put the true translation in the margin. The objects of redemption are first brought together into a unity, and when distributed as individuals, our doctrine of the church will come from the careful consideration of these passages. The Father gives the thought is developed in Rom. 8: 29, 30. Such statements seem to leave no room for human free will, which is authoritatively asserted by our own consciences, and set forth by Paul in the same breath with the complementary truth, Phil. 2: 12, 13. The doctrine of God's immanence will solve the speculative problem, so far as our finite intelligence can solve it here. The fact is what matters most: God "gives" to his son all who are willing to hear his call, and the son will never reject them.

**37. Written**—In Psa. 78: 24. Verse 24. Capernaum—It does not say that they found him there. In verse 17 the ultimate objective is Capernaum, but Mark expressly says they aimed at Bethsaida, and then finally that they crossed to "Genesaret." So here it is said vaguely they found him on the other side. 26. In the dialogues of this Gospel we regularly find Jesus going directly for the thought behind the words. 27. Perisheth—Compare Col. 2: 22. Son of man, as elsewhere, recalls his ultimate function as Judge of men.

**38. These Kiddies Depend Upon You For Milk.** This group of refugees is typical of the bulk of the Belgian people to-day. Their faces show pitifully the hardships they have undergone in the last two years. Most pathetic of all are the children. Thanks to the splendid work of unselfish philanthropists, they are being fed well. But apart from this there is little that can be done for them. It is impossible, for instance, to supply them with homes, or with those useless but delightful gifts that characterize the holidays in more fortunate lands. Least of all can these children know the joy that comes of making such gifts. Surely in these circumstances the least the people of the British Empire can do is to see that the Belgians and their babies are fed. And this they have been doing. British, Canadians and Americans have responded nobly to the call, and have kept alive the nation that saved them from the Germans. In full confidence that they will continue their generous gifts the Belgian Relief Committee is reminding us that every day of the year as long as the Germans are in Belgium it is necessary that food be supplied to the grown-ups and the kiddies of this stricken land. Contributions for this purpose may be sent to the Central Belgian Relief Committee, 59 St. Peter Street, Montreal, or to the local offices in each community or district.

**39. The Dairy**  
Sometimes a cow is uneasy, steps or moves or even kicks when being milked. See if there are stray hairs on the udder that are being pulled. Remove them by the use of shears and note if the cow is more quiet. Don't neglect to have the box stalls ready for the cows that are to calve in the early spring. "Lest we forget" let me again urge that if the stables are not quite warm enough, blanket the new-born calf. Pieces of old wool blankets washed clean are just the thing. This is important. These blankets are easy to make. Fasten them by strings, tied at the neck, around each hind leg, and under the belly by the fore legs. As the calf grows these strings can be let out. My calves have grown and worn these blankets until they were a mere patch on their backs. "The dairy cow," says Professor Dean, "will help the farmer solve the labor problem by furnishing remunerative labor all the year round, on high priced land we can see no other solution of the labor difficulties on farms."

**40. Not His Fault.**  
The family were going to a picnic, and Howard had been dressed first and told to sit on the porch until the rest were ready. Soon afterwards his mother discovered him playing in the dirt, with his clean clothes hopelessly ruined. After the painful scene which followed he was deposited forcibly on a chair and asked if he did not remember he had been told to stay on the porch and keep clean. "Yes," he sobbed, "but why didn't you tell somebody to watch me?"

**41. China's Grand Canal** is the most wonderful artificial waterway in the world. It is over 200 miles long. He was an old dandy. He wore no overcoat, and the icy wind twisted his threadbare clothes about his shivering body. "Wind," he demanded whimsically, "whar wuz yoo dis time las' July?"

**42. Heroism in Face of the Enemy Rewarded by the Legion of Honor.**  
At the Sorbonne, in Paris, a matinee was organized recently in honor of French womanhood, and the heroism of a young girl of 21 was celebrated. This girl, Marcelle Semmer, was decorated with the Croix de Guerre and the Legion of Honor. During the retreat in August, 1914, after the French had crossed the Somme and its canal, pursued by the enemy, Marcelle Semmer had the presence of mind to open the sluice gates in order to prevent the Germans from crossing the canal. This act of heroism was carried out under the fire of the Germans, who fired on her and on the troops. As a result the enemy troops were held up until the following morning. Remaining in the village, the girl was able to pick up and to hide underground 16 exhausted French soldiers, whom she helped to escape in civilian clothes. Having been caught by the enemy in the act of feeding a French soldier hidden in a thicket, she was condemned to death. When questioned, she replied:—"I am an orphan, and have but one mother—France. Do with me what you will."

**43. Cocoon shells** are being fed to cattle in a course of experiments by French biologists.

# BEDTIME STORY

THE SCRAPBOOK FAIRY

In grandmother's picture scrapbook there had lived, for, oh, so many years the dearest little fairy imaginable. Her full white dress was sprinkled with tiny rosebuds, not much bigger than the head of a pin, and a wealth of them crowned her dainty curls.

The two little girls, Bessie and Ada, always asked to see her whenever they visited grandmother, who would tell them wonderful stories about the fairy. She always ended by saying, "Very good thing indeed that I have her safe in this book! Surely, the covers will keep her there!"

One Saturday, when Bessie and Ada arrived at their grandmother's they found the house in a great state of excitement. The parrot had got out of his cage and gone up a tree; the white Angora kitten had rubbed against the newly painted cellar door, and was now a bright green; and last, but not least, the beautiful cake that was baking for the children had been entirely forgotten, and it was put into the oven, and had burned to a cinder.

But Bessie and Ada had been brought up to be useful children, and to help wherever they could. Ada, who was as active as any monkey, went up the tree and brought down Mr. Parrot, who was too frightened even to try to peck at her; and Bessie took hold of the kitten by its collar and neatly snipped off bunches of hair where the point was thickest. Then they both told grandmother that they would much rather have the red-checked apples they could see on the sideboard than any cake that had ever been baked.

Grandmother smiled to see what capable and amiable little girls they were, although she kept repeating that she could not see how the parrot, the cat and the cake had all managed to make so much trouble at one time.

Supper was not quite ready; so Bessie picked up the old scrapbook, which that day was lying on the table, to look again at the fairy. The book opened almost of itself at the familiar page—but no fairy was to be found.

"Why, grandmother," cried Bessie, showing the empty page, "she's not here! What has become of her?" Grandmother looked and looked, but sure enough there was no rose-garlanded little creature to be seen anywhere—only two spots of glue where she had once been.

"The book flew open this morning," said grandmother, "and the fairy has escaped! That accounts for all that has happened. We must find her and put her back again, or who knows what will happen next!"

The children at once began the search, and soon Bessie's bright eyes found the fairy—in the fireplace almost at the other end of the room, looking, grandmother declared, even more mischievous than ever.

"Now," said grandmother, as she brought out a bottle of fresh paste and fastened the fairy to the page again, "we will go to the dining room and enjoy our supper in peace!"

**A Song of Winter.**  
Sing a song of winter,  
When coldest weather comes;  
Four and twenty snowdrifts  
Picking up the crumbs;  
When the crumbs are eaten,  
The birds fly to a tree;  
Isn't that a pretty sight  
For anyone to see?

**A DAUGHTER OF FRANCE.**  
Heroism in Face of the Enemy Rewarded by the Legion of Honor.

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